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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,204	09/30/2003	Werner Schuhmann	NC-2	9959

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BOCA RATON, FL 33486

EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
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2837

MAIL DATE	DELIVERY MODE
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08/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/675,204

Applicant(s)

SCHUHMANN ET AL.

Examiner

Jeremy Luks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1 – The Examiner will refer to DE 199 25 051 C2, provided by Applicant in the IDS for a translation of Kuhn) in view of Moster (6,658,132). Kuhn teaches an enclosure (Figure 2, #10) having a front face (front face is shown in Figure 1); a speaker (38) contained within the enclosure (10), the enclosure (10) comprising a plurality of holes (28) sufficient to allow sound to pass from the speaker (38) through the enclosure (10), the plurality of holes (28) in the enclosure covering less than the entire front face of the enclosure (10); and a foil (42) placed in the enclosure (10) over the holes (28), and attached to the enclosure (10) at the foil's (42) perimeter such that the foil (42) acts as a second membrane for the speaker (38), the foil (42) seals the speaker (38) against intrusion by a liquid (Page 8, [0030]), the foil (42) installed only in an area of the enclosure (10) proximate to the plurality of holes (28) in the enclosure (10). Kuhn fails to teach a foil (42) placed on the enclosure covering the plurality of holes and having a first side and a second side; and where only the first side of the foil is connected to the enclosure. Moster teaches a similar device

also comprising an enclosure (Figure 3, #12); a speaker (20) contained within the enclosure (12), the enclosure (12) comprising a plurality of holes (48) sufficient to allow sound to pass from the speaker (20) through the enclosure (12) (Col. 5, Lines 12-16); and a foil-like cover (14) placed on the enclosure (12) over the holes (48), and attached to the enclosure (12) at the foil-like cover's perimeter such that the foil-like cover seals the speaker (20) against intrusion by a liquid (Col. 5, Lines 64-65; Col. 6, Lines 4-28); where the foil-like cover (14) has a first side (Figure 4, #56) and a second side (54); and where only the first side (56) of the foil-like cover (14) is connected to the enclosure (12). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kuhn, with the apparatus of Moster to protect against liquid intrusion, as well as dirt from entering the housing (Col. 5, Lines 64-65).

2. Claim 3, 16, 18, 21 and 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1) in view of Moster (6,658,132) as applied to claims 1 and 13 above, and further in view of Banter (6,512,834). Kuhn and Moster are relied upon for the reasons and disclosures set forth above. Moster further teaches a foil attached to the enclosure. Kuhn and Moster fail to disclose a foil being round and being glued only at about the outer 2 to 3 mm perimeter of the foil; where the foil is attached to the enclosure along an annular region of the foil; and where an inner portion of the foil is not attached to the enclosure and is free to vibrate, thereby acting as a second diaphragm for the speaker. Banter describes a foil in a round shape (See Figure 3, #20) and being glued with adhesive only along the outer perimeter (22) (See Col. 7, Lines 49-53); where the foil (20) is attached to the enclosure (when combined

with Kuhn and Moster) along an annular region of the foil (20) (See Figures 3-10); and where an inner portion of the foil (20) is not attached to the enclosure (when combined with Kuhn and Moster) and is free to vibrate, thereby acting as a second diaphragm for the speaker (Col. 6, Lines 18-30). Banter further describes that the bonded area be minimized depending on the size and acoustical requirements of the assembly (See Col. 8, Lines 9-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus Kuhn as modified, with the apparatus of Banter to provide a protective membrane configured to allow sound energy to pass through with very low attenuation, while focusing acoustic energy to housing apertures.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1) in view of Moster (6,658,132) as applied to claim 1 above, and further in view of Ford (5,664,015). Kuhn and Moster are relied upon for the reasons and disclosures set forth above. Kuhn and Moster fail to teach an enclosure having about thirty of said holes, each hole having a diameter of about 1 mm. Nevertheless, Ford describes an enclosure having about thirty holes (See Figure 1, #78). Ford fails to specify a specific diameter of said holes, however, it would have been obvious to one of ordinary skill in the art at the time of the invention to make said holes about 1 mm in diameter in order to keep drops of water from entering said holes. Further, it would have been obvious to combine the apparatus of Kuhn as modified, with the apparatus of Ford in order to allow for the sound path to be uninterrupted in the event of obstruction to one or more of the sound holes.

4. Claims 5, 6, 9, 11, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1) in view of Moster (6,658,132) as applied to claim 1 above, and further in view of Bohnke (6,546,107). Kuhn discloses an enclosure (Figure 2, #10) having a front face (front face is shown in Figure 1); a speaker (38) contained within the enclosure (10), the enclosure (10) comprising a plurality of holes (28) sufficient to allow sound to pass from the speaker (38) through the enclosure (10), the plurality of holes (28) in the enclosure covering less than the entire front face of the enclosure (10); and a foil (42) placed on the enclosure (10) over the holes (28), and attached to the enclosure (10) at the foil's (42) perimeter such that the foil (42) acts as a second membrane for the speaker (38), the foil (42) seals the speaker (38) against intrusion by a liquid (Page 8, [0030]), the foil (42) installed only in an area of the enclosure (10) proximate to the plurality of holes (28) in the enclosure (10). Kuhn fails to disclose a magnetic shield located between the enclosure and the speaker, providing mechanical protection for the speaker and sitting between the foil and the speaker, the magnetic shield comprising a plurality of holes, which allow the passage of sound, said holes being offset from the holes in the enclosure, and a foil placed on the enclosure and covering the plurality of holes. Moster teaches a similar device also comprising an enclosure (Figure 3, #12); a speaker (20) contained within the enclosure (12), the enclosure (12) comprising a plurality of holes (48) sufficient to allow sound to pass from the speaker (20) through the enclosure (12) (Col. 5, Lines 12-16); and a foil-like cover (14) placed on the enclosure (12) over the holes (48), and attached to the enclosure (12) at the foil-like cover's perimeter such that the foil-like cover seals the speaker (20)

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against intrusion by a liquid (Col. 5, Lines 64-65; Col. 6, Lines 4-28); where the foil-like cover (14) has a first side (Figure 4, #56) and a second side (54); and where only the first side (56) of the foil-like cover (14) is connected to the enclosure (12). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kuhn, with the apparatus of Moster to protect against liquid intrusion, as well as dirt from entering the housing (Col. 5, Lines 64-65). Bohnke teaches a magnetic shield (Figure 4, #AD) located between the enclosure and the speaker, providing mechanical protection for the speaker, the magnetic shield comprising a plurality of holes, which allow the passage of sound, said holes being offset from the holes in the enclosure (Col. 3, Lines 37-65; Col. 4, Lines 62-67). When used in combination with Kuhn, the protection plate will sit between the foil and the speaker. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kuhn as modified, with the apparatus of Bohnke to provide a magnetic cover in the form of a shielding plate which is substantially impermeable to static magnetic fields from an electrodynamic/magnetic transducer, at least in the sound exit region of the transducer.

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1) and Moster (6,658,132) as applied to claim 1 above, and further in view of Daddis (6,029,942). Kuhn and Moster are relied upon for the reasons and disclosures set forth above. Moster further teaches a first cover (Figure 3, #12 (front/left side)) and a second cover (Figure 3, #12 (back/right side)), and the second cover (12) having at least one boss (Figure 5, where screws #51 pass through; can also

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clearly be seen unlabeled in Figure 3) engaging a printed circuit board (PCB) (26).

Kuhn and Moster fail to teach wherein said boss having a plurality of deformable ribs that deform when the PCB is pressed with the first cover against the ribs until the first cover meets the boss. Daddis discloses a boss (Figure 5, #22), which is inserted through a hole of a support element (28), said boss (22) having a plurality of deformable ribs (Figure 6, #35) which deform when the support element (28) is pressed with the first cover (32) against the ribs (35), until the first cover (32) meets the boss (Figure 5, #22). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kuhn as modified, with the apparatus of Daddis in order to protect the internal components of the PCB from vibrations or impact.

6. Claims 10, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1) and Moster (6,658,132) and Bohnke (6,546,107) as applied to claim 9 above, and further in view of Daddis (6,029,942). Kuhn, Moster and Bohnke are relied upon for the reasons and disclosures set forth above. Moster further teaches a first cover (Figure 3, #12 (front/left side)) and a second cover (Figure 3, #12 (back/right side)), and the second cover (36) having at least one boss (Figure 5, where screws #51 pass through, can also clearly be seen unlabeled in Figure 3) engaging a printed circuit board (PCB) (26). Kuhn, Moster and Bohnke fail to teach wherein said boss having a plurality of deformable ribs that deform when the PCB is pressed with the first cover against the ribs until the first cover meets the boss; and the PCB being installed such that the distance between a top surface of the PCB and the front cover is within a certain margin of error regardless of the PCB's thickness. Daddis discloses a



boss (Figure 5, #22), which is inserted through a hole of a support element (28), said boss (22) having a plurality of deformable ribs (Figure 6, #35) which deform when the support element (28) is pressed with the first cover (32) against the ribs (35), until the first cover (32) meets the boss (Figure 5, #22). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kuhn as modified, with the apparatus of Daddis in order to protect the internal components of the PCB from vibrations or impact. With respect to the PCB being installed such that the distance between a top surface of the PCB and the front cover is within a certain margin of error regardless of the PCB's thickness; a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). Further, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233. Still further, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn (WO 00/72344 A1), and Moster (6,658,132) and Bohnke (6,546,107), as applied to claim 9 above, and further in view of Banter (6,512,834). Kuhn, Moster and Bohnke are relied upon for the reasons and disclosures set forth above. Kuhn, Moster and Bohnke fail to teach a foil attached to the enclosure only at the perimeter of the foil. Banter

teaches a foil (See Figure 3, #20) attached to the enclosure only at the perimeter (22) (See Col. 7, Lines 49-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus Kuhn as modified, with the apparatus of Banter to provide a protective membrane configured to allow sound energy to pass through with very low attenuation, while focusing acoustic energy to housing apertures.

### ***Response to Arguments***

8. Applicant's arguments with respect to Claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of Kuhn, Moster, Ford, Banter, Bohnke, and Daddis to teach all of the limitations described by Applicant.

9. Further, the Examiner notes that that basic idea in combining Kuhn and Moster is that Moster shows that the foil #42 of Kuhn can be placed on the exterior of the enclosure instead of just around the speaker element within the enclosure. The remarks provided by Applicant are simply a piecemeal analysis against the references individually, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in

any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

10. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, relocating the foil #42 of Kuhn to the exterior of the enclosure as taught by Moster will protect against liquid intrusion, as well as dirt from entering the housing (Moster, Col. 5, Lines 64-65), as provided by the Examiner in the above rejection.

### ***Conclusion***

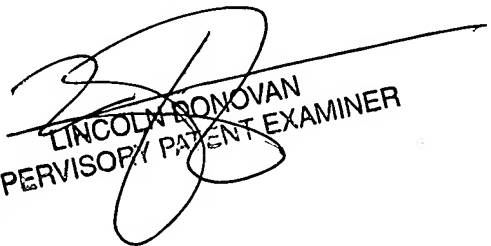
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record relating to waterproof patient handsets are disclosed in the PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
Patent Examiner  
Art Unit 2837  
Class 181

  
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SUPERVISORY PATENT EXAMINER